

What is claimed is:

1. A composition of a plasma display panel (PDP) comprising a ferroelectric transparent ceramics material.

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2. The composition of claim 1, wherein the ferroelectric transparent ceramics material is contained in the composition of a dielectric of the PDP.

3. The composition of claim 1, wherein a lower dielectric layer of the PDP is formed such that ferroelectric transparent ceramics powder is mixed in the range of 1 wt% ~ 20 wt % to parent glass powder, and then, the mixed powder is printed and fired.

4. The composition of claim 1, wherein a ferroelectric transparent ceramics thin film is formed with a thickness of thousands of Å at the surface of the lower dielectric layer or embedded in the lower dielectric layer of the PDP.

5. The composition of claim 1, wherein a composition of an upper dielectric layer of the PDP contains the ferroelectric transparent ceramics material.

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6. The composition of claim 5, wherein the upper dielectric layer is formed such that at least one powder of (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub> is mixed in the range of 1 wt % ~ 5 wt % to parent glass powder, and the mixed powder is printed and fired.

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7. The composition of claim 5, wherein at least one thin film of (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub> is formed with a thickness of scores of Å ~ hundreds of Å at the surface of the upper dielectric layer.

5 8. The composition of claim 1, wherein a composition of a phosphor of the PDP contains the ferroelectric transparent ceramics powder.

9. The composition of claim 1, wherein the phosphor layer of the PDP is formed by mixing ferroelectric transparent ceramics powder of a few nm in  
10 the range of 1 wt % ~ 10 wt % to the phosphor powder.

10. The composition of claim 1, wherein the ferroelectric transparent ceramics thin film is formed at the surface of the phosphor layer of the PDP.

15 11. The composition of claim 10, wherein the ferroelectric transparent ceramics thin film is formed with a thickness of below 100Å at the surface of the phosphor layer.

12. The composition of claim 1, wherein the ferroelectric transparent  
20 ceramics material has a 70% or more visible ray transmittance and a 1000 or more electric permittivity.

13. The composition of claim 1, wherein a composition of the ferroelectric transparent ceramics material is at least one selected from the group  
25 consisting of (Pb-La)(ZrTi)O<sub>3</sub>, (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(HfTi)O<sub>3</sub>, (Pb,Ba)-(ZrTi)O<sub>3</sub>,

(Sr,Ca)-(LiNbTi)O<sub>3</sub>, LiTaO<sub>3</sub>, SrTiO<sub>3</sub>, La<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>, LiNbO<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub>, (Sr,Ba)-Nb<sub>2</sub>O<sub>3</sub>, K(Ta,Nb)O<sub>3</sub>, (Sr,Ba,L)-(Nb<sub>2</sub>O<sub>6</sub>), NaTiO<sub>3</sub>, MgTiO<sub>3</sub>, BaTiO<sub>3</sub>, SrZrO<sub>3</sub> or K<sub>2</sub>NbO<sub>3</sub>.

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- a lower dielectric layer including the ferroelectric transparent ceramics material);
- an upper dielectric layer including the ferroelectric transparent ceramics material; and
- 10            a phosphor layer including the ferroelectric transparent ceramics material.

15.     A composition of a PDP, comprising:
- a lower dielectric layer containing a ferroelectric transparent ceramics material;
- 15            an upper dielectric layer containing the ferroelectric transparent ceramics material; and
- a fluorescent material with the ferroelectric transparent ceramics material mixed therein or having a ferroelectric transparent ceramics thin film.

- 20            16.     The composition of claim 15, wherein the ferroelectric transparent ceramics material has a 70 or more visible ray transmittance and a 1000 or more electric permittivity.

17.     The composition of claim 15, wherein the ferroelectric transparent
- 25            ceramics material is at least one selected from the group consisting of (Pb-

La)(ZrTi)O<sub>3</sub>, (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(HfTi)O<sub>3</sub>, (Pb,Ba)-(ZrTi)O<sub>3</sub>, (Sr,Ca)-(LiNbTi)O<sub>3</sub>, LiTaO<sub>3</sub>, SrTiO<sub>3</sub>, La<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>, LiNbO<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub>, (Sr,Ba)-Nb<sub>2</sub>O<sub>3</sub>, K(Ta,Nb)O<sub>3</sub>, (Sr,Ba,La)-(Nb<sub>2</sub>O<sub>6</sub>), NaTiO<sub>3</sub>, MgTiO<sub>3</sub>, BaTiO<sub>3</sub>, SrZrO<sub>3</sub> or K<sub>2</sub>NbO<sub>3</sub>.

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18. The composition of claim 15, wherein the lower dielectric layer is formed such that ferroelectric transparent ceramics powder is mixed in the range of 1 wt% ~ 20 wt % to parent glass powder, and then, the mixed powder is printed and fired.

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19. The composition of claim 15, wherein a ferroelectric transparent ceramics thin film is formed with a thickness of thousands of Å at the surface of the lower dielectric layer or embedded in the lower dielectric layer.

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20. The composition of claim 15, wherein the upper dielectric layer is formed such that at least one powder of (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub> is mixed in the range of 1 wt % ~ 5 wt % to parent glass powder, and the mixed powder is printed and fired.

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21. The composition of claim 15, wherein at least one thin film of (Pb,Bi)-(ZrTi)O<sub>3</sub>, (Pb,La)-(MgNbZrTi)O<sub>3</sub>, (Pb,Ba)-(LaNb)O<sub>3</sub> is formed with a thickness of scores of Å ~ hundreds of Å at the surface of the upper dielectric layer.

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22. The composition of claim 15, wherein the phosphor layer of the PDP is formed by mixing ferroelectric transparent ceramics powder of a few nm in

the range of 1 wt % ~ 10 wt % to the phosphor powder.

23. The composition of claim 15, wherein the ferroelectric transparent ceramics thin film is formed with a thickness of below 100Å at the surface of the  
5 phosphor layer.